

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-333/85-29

Docket No. 50-333

License No. DPR-59 Priority - Category C

Licensee: Power Authority of the State of New York

P.O. Box 41

Lycoming, New York 13093

Facility Name: James A. FitzPatrick Nuclear Power Plant

Inspection At: Scriba, New York

Inspection Conducted: October 21 - 25, 1985

Inspector: JR Johnson, for 11/20/85  
S. D. Kucharski, Reactor Engineer date

Approved by: Jon R Johnson 11/20/85  
J. Johnson, Chief, Operational Programs date  
Section, OB, DRS

Inspection Summary: Inspection on October 21 - 25, 1985 (Report No. 50-333/85-29)

Areas Inspected: Routine unannounced inspection of the Inservice Testing Surveillance program for pumps and valves, and tours of the facility. The inspection involved 31 hours onsite by one region-based NRC inspector.

Results: No violations or deviations were identified.

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## DETAILS

### 1. Persons Contacted

- \*R. Baker, Technical Services Superintendent
- \*R. Converse, Resident Manager
- \*W. Fernandee, Superintendent of Power
- \*D. Lindsey, Operations Superintendent
- \*J. Lyons, Performance and Reliability Supervisor
- \*D. Patch, QA Superintendent
- P. Swinburne, Performance Engineer

#### NRC Personnel

- \*A. Luptak, Resident Inspector
- \*J. Stairs, Reactor Engineer

Denotes those present at the exit meeting on October 25, 1985.

### 2. Licensee Action on Previous Inspection Findings

(Open) Unresolved Item 50-333/83-10-02: The licensee developed and revised Plant Standing Order No. PSO 31 to govern pump and valve inservice test data evaluation and trend analysis. The inspector reviewed this procedure and the trend analyses. Based on this review (which is described further in Section 3.5 of this report), this item will remain open.

(Open) Unresolved Item 50-333/83-10-03: The licensee had agreed to establish a limiting value of full stroke time for all power operated valves as required by IWV-3410(C) of ASME Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components. At this time the licensee has all the power operated valves accounted for but not all valves have tested to date. This item will remain open pending NRC review of the test data.

### 3. Inservice Testing (IST) Program for Pumps and Valves

#### 3.1 Document Review

- Draft Copy of the Inservice Testing Program Description for Pumps and Valves.
- Plant Standing Order Procedure No. PSO 31, IST Program for Pumps and Valves, Revision 3, March 27, 1985.

- Operation Surveillance Test Procedure No. F-ST-1B, MSIV Fast Closure (ISI)\*, Revision 6, March 20, 1985.
- Operation Surveillance Test Procedure No. F-ST-1C, Primary Containment Isolation Valve Exercise (ISI)\*, Revision 16, August 28, 1985.
- Operation Surveillance Test Procedure No. F-ST-1R, Reactor Building Closed Loop Cooling Containment Isolation AOV Exercise (ISI)\*, Revision 1, June 12, 1985.
- Operation Surveillance Test Procedure No. F-ST-2A, RHR Pump Flow Rate Test (ISI)\*, Revision 16, July 3, 1985.
- Operation Surveillance Test Procedure No. F-ST-2R, RHR Service Water Pump and MOV Operability Test (ISI)\*, Revision 10, June 12, 1985.
- Operation Surveillance Test Procedure No. F-ST-2S, Valve Testing - Residual Heat Removal (ISI)\*, Revision 9, July 17, 1985.
- Operation Surveillance Test Procedure No. F-ST-2U, RHR Service Water Piping (Class III) Pressure Test (ISI)\*, Revision 2, February 13, 1985.
- Operation Surveillance Test Procedure No. F-ST-2W, RHR Piping (Class II) Pressure Test (ISI)\*, Revision 1, February 13, 1985.
- Operation Surveillance Test Procedure No. F-ST-2A, Core Spray/Flow Rate/Valve Operability Test (ISI)\* Revision 18, July 17, 1985.
- Operation Surveillance Test Procedure No. F-ST-3M, Valve Testing - Core Spray System - Cold Shutdown Only (ISI)\*, Revision 4, May 23, 1985.
- Operation Surveillance Test Procedure No. F-ST-3N, Core Spray Class II Piping Pressure Test (ISI)\*, Revision 1, February 13, 1985.
- Operation Surveillance Test Procedure No. F-ST-4B, HPCI Flow Rate/HPCI Pump Operability/HPCI Valve Operability Tests (ISI)\*, Revision 20, August 7, 1985.
- Operation Surveillance Test Procedure No. F-ST-4H, RCIC/HPCF Valve Testing (ISI)\*, Revision 9, September 4, 1985.

- Operation Surveillance Test Procedure No. F-ST-4L, HPCI Class II Piping Pressure Test (ISI)\*, Revision 2, February 20, 1985.
- Operation Surveillance Test Procedure No. F-ST-6A, Standby Liquid Control Pump Functional Test (ISI)\*, Revision 14, February 6, 1985.
- Operation Surveillance Test Procedure No. F-ST-6D, SLC Initiation and Demineralized Water Injection into R.V. Test (ISI)\*, Revision 7, January 11, 1984.
- Operation Surveillance Test Procedure No. F-ST-6E, Standby Liquid Control Explosive Valve Inspection and Replacement (ISI)\*, Revision 2, February 23, 1983.
- Operation Surveillance Test Procedure No. F-ST-8B, ESW Pump Operability Test (ISI)\*, Revision 3, April 2, 1981.
- Operation Surveillance Test Procedure No. F-ST-8C, ESW Motor Operated Valves Operability Test\*, Revision 4, May 13, 1981.
- Operation Surveillance Test Procedure No. F-ST-8D, ESW Pump Flow Rate Test (ISI)\*, Revision 12, August 7, 1985.
- Operation Surveillance Test Procedure No. F-ST-8K, Control Room Service and Chilled Water System Class III Piping Pressure Test (ISI)\*, Revision 1, February 13, 1985.
- Operation Surveillance Test Procedure No. F-ST-8L, Reactor Building Closed Loop Cooling, Emergency Service Water, and Service Water Systems Class III Piping Pressure Test (ISI)\*, Revision 3, May 22, 1985.
- Operation Surveillance Test Procedures No. F-ST-9B, EDG Full Load Test and ESW Pump Operability Test (ISI)\*, Revision 20, November 7, 1984.
- Operation Surveillance Test Procedure No. F-ST-9F, Emergency Diesel Generator System Air Start Piping (Class III) Pressure Test (ISI)\* Revision 1, February 13, 1985.
- Operation Surveillance Test Procedure No. F-ST-9Q, Emergency Diesel Generator Fuel Oil Piping (Class III) Pressure Test (ISI)\*, Revision 1, February 13, 1985.
- Operation Surveillance Test Procedure No. F-ST-9H, Emergency Diesel Generator Engine Cooling Water Piping (Class III) Pressure Test (ISI)\*, Revision 0, January 12, 1982.

- Operation Surveillance Test Procedure No. F-ST-24, ISI RCIC Valve Testing, Revision 6, April 18, 1984.
- Operation Surveillance Test Procedure No. F-ST-24A, RCIC Pump and Valve Operability/Flow Rate Test (ISI), Revision 8, August 7, 1985.
- Operation Surveillance Test Procedure No. F-ST-26M, Valve Testing - Reactor Water Clean up System (ISI), Revision 7, August 15, 1985.

### 3.2 Scope of Review

The inspector reviewed the above documents to ascertain compliance with 10 CFR 50.55a(g) which requires Inservice testing (IST) of pumps and valves in accordance with Section XI of the ASME Boiler and Pressure Vessel Code. A major portion of this review was evaluation of the licensee's IST program with respect to procedures, conduct of test, and analysis of results.

### 3.3 Procedure Review

The inspector reviewed the surveillance procedures listed in Paragraph 3.1 for technical adequacy and to ascertain compliance with requirements of Technical Specifications, Section XI of the ASME Boiler and Pressure Vessel Code, and 10 CFR 50.55a. During the review process the inspector noted that the surveillance procedures do not specify the ranges of acceptance criteria (allowable, alert and required action range) so that the operator could analyze the results of the test immediately upon completion. The licensee agreed to add the various limits to each procedure. The inspector had no further questions at this time.

### 3.4 Test Witnessing

On October 22, 1985, the inspector witnessed the High Pressure Coolant Injection (HPCI) surveillance test. The test was being conducted in accordance with approved procedure F-ST-4B, HPCI Flow Rate/HPCI Pump Operability/HPCI Valve Operability Test (ISI)\*, Revision 20. The surveillance test was conducted in two parts; for technical specification requirements and for Inservice Testing requirements. The inspector observed the performance of the test to ascertain that the prerequisites were met, the proper precautions were taken, the instrumentation used for the test had the required calibration stickers, and the operator involved in performing the test was knowledgeable of the procedure and its requirements. The inspector did note that the operator performing the test was not reviewing the data to see if the IST results were acceptable during the test. This is discussed further below.

### 3.5 IST Results Evaluation

The inspector reviewed individual data sheets and trend reports for a sample of the tests listed in Section 3.1. The inspector also discussed analyses of the test results with the ISI coordinator. During the review process the inspector noted that, on the average, the IST data took 5 to 6 days for final review by the ISI coordinator. The ISI coordinator related that the data should also be reviewed by operations during or just after testing. In reviewing a sample of the test reports three different examples were pointed out to the licensee where operations did not review the data immediately upon completion. They were as follows:

- F-ST-2A - RHR Pump Flow Rate Test, Revision 11. On October 14, 1985. The  $\Delta P$  limit (pump suction-to-discharge) was exceeded during the test and operations stated the test met the acceptance criteria. This also occurred on October 17, 1985.
- F-ST-2R - RHR Service Water Pump and MOV Operability Test, Revision 10. The  $\Delta P$  limit was exceeded.
- F-ST-4B-HPCI Flow Rate/HPCI Pump Operability/HPCI Valve Operability, Revision 20. On May 31, 1985 the  $\Delta P$  limit was exceeded and operations was notified by the ISI coordinator on June 10, 1985.

All other test data, such as flow rates, discharge pressures, temperatures and vibration measurements met acceptance criteria for these tests.

The inspector pointed out the problems, with acceptance limits to the licensee who agreed to add the limits to the test procedures as an aid to eliminate any problems in the review process. This item will remain unresolved as stated in Section 2 (Item 50-333/83-10-02) pending procedure revisions with ranges of acceptance criteria.

### 4.0 QA/QC Involvement

During the review of the IST program, the inspector interviewed the QA department personnel to verify QA involvement. The inspector noted that there are approximately 260 surveillance test procedures and, since 1977, the QA department has witnessed or audited 62 tests. Based on the number of times these tests are performed, this is a low percentage. Of the 62 tests witnessed only 5 were part of the IST program. The QA department has agreed to increase their audit program coverage to 10% of the technical specification related surveillance procedures per year. The inspector had no further questions at this time.

#### 5.0 Management Meeting

A meeting was held on October 25, 1985 to discuss the scope and finding of the inspection as delineated in this report. At no time during this inspection was written information provided to the licensee.